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(54) Title: HOSPITAL BED <div> </div> (57) Abstract <p>The present invention relates to a hospital bed having a frame (1) with two articulated pairs of wheels (9), between which is arranged an articulated or non-articulated pair of wheels (2). The invention is characterized in that the intermediate pair of wheels (2) is spring-supported (4) at the frame (1) in order to facilitate transport of the bed from place to place.</p>		

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HOSPITAL BED

Technical field:

The present invention relates to a hospital bed having a frame with
5 two articulated pairs of wheels, between which is arranged an
articulated or non-articulated pair of wheels. The term "articulated
wheel" here means a wheel supported by a bearing housing pivotable
about a vertical axis.

10 Background art:

It is difficult for one person to move such a bed and two people are
generally required to carry out this transport simply and practically.

Description of the invention:

15 The object of the present invention is to provide a solution to these
and other associated problems. The hospital bed according to the
invention is characterized in that the intermediate pair of wheels is
spring-supported at the frame, and in that a ratchet for the intermediate
20 pair of wheels is arranged on the bed and designed to block the
direction of movement of the wheels and possibly also lock this pair of
wheels and, in unlocked position, to allow the wheels in this pair to
move freely. The construction is intended to facilitate transport of the
bed from place to place. Transport of such a bed can easily be performed
by one person since the bed pivots about a fulcrum at the intermediate
25 pair of wheels. The intermediate pair of wheels being spring-supported
means that, even when the bed is stationary, all six wheels reach the
floor, the middle pair under a certain pressure, thus ensuring that a
person lying in the bed is not subjected to unpleasant tilting, while at
the same time the intermediate pair of wheels facilitates transport of
30 the bed from place to place. The bed frame can be used for old beds as
well as new ones.

Brief description of the drawings:

The invention is illustrated in the accompanying drawings in which
35 Figure 1 shows a bed frame, seen from the side. Figure 2 is a section

along the line A - A in Figure 1, and Figure 3 is a section along the line B - B in Figure 1.

Description of embodiment:

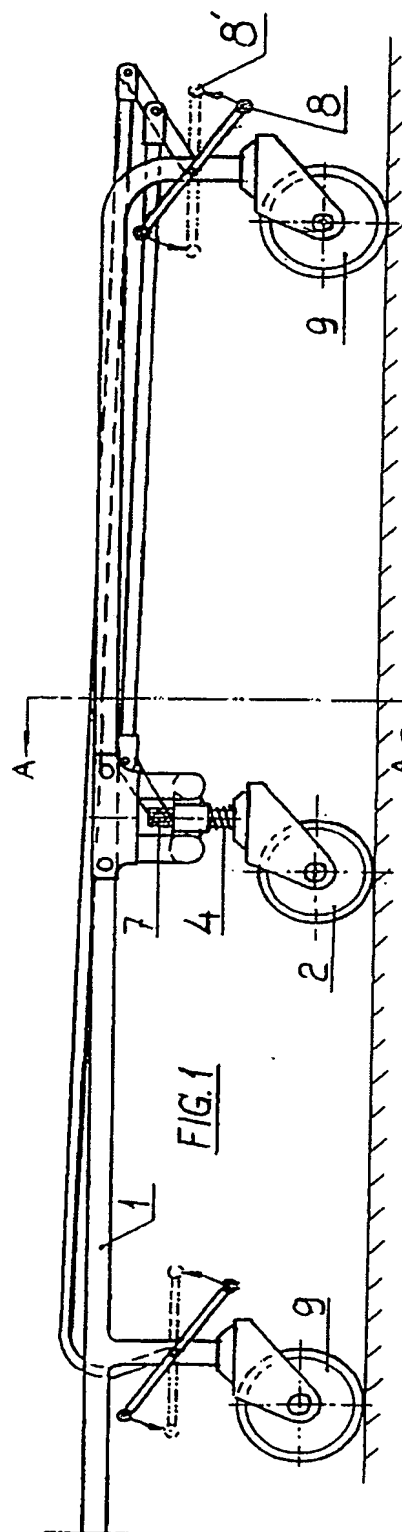
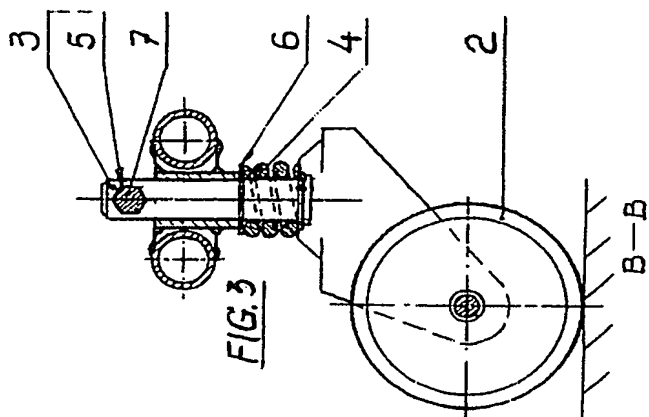
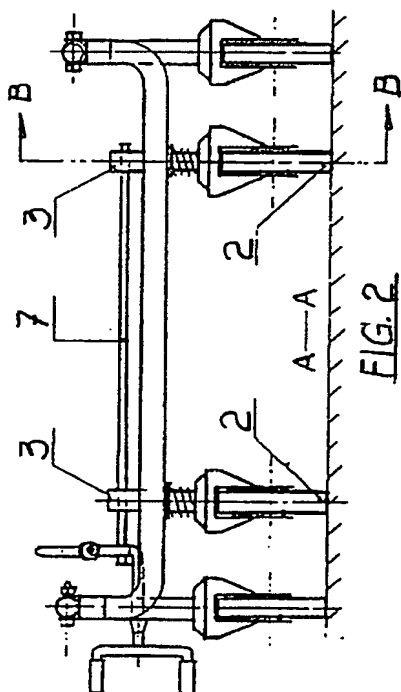
5 Figure 1 shows the frame (1) of a hospital bed according to the invention. The bed (frame) is provided in conventional manner with two articulated pairs of wheels (9), with one wheel at each corner. The wheels are articulated and, as mentioned, manipulation of a bed with only these wheels is cumbersome. The bed is provided with an
10 intermediate pair of wheels (2), the two wheels of which are supported by vertical shafts (3) arranged in the frame. The intermediate wheels are spring-supported in relation to the frame (1), in this case by helical springs (4) around the support shafts (3), the springs being clamped between washers (6) welded to the support shafts and wheel houses for
15 these wheels (2). See Figure 3. The aim is that, when the bed is stationary and during transport, all six wheels shall be in contact with the floor, the intermediate wheels being under a certain pressure. When the bed is stationary, therefore, it cannot tip over. At the same time these intermediate wheels contribute to facilitating transport of
20 the bed.

Hexagonal apertures (5) for a hexagon bar (7) are provided in the support shafts (3). The bar is manipulated from the end of the bed between a locked position (8) and a movable position (8'). The locked
25 position primarily locks the direction of movement but may also lock the wheels. The bed may also be provided with brake members (not shown). Since the bed always stands on six wheels there is no risk of rocking. The ratchet means is also shown in Figures 2 and 3. Turning the hexagon bar (7) either locks or releases the middle pair of wheels
30 (2).

The invention can be varied in many ways within the scope of the appended claims.

CLAIMS

1. A hospital bed having a frame (1) with two articulated pairs of wheels (9), between which is arranged an articulated or non-articulated pair of wheels (2), characterized in that the intermediate pair of wheels (2) is spring-supported (4) at the frame (1), and in that a ratchet (7) for the intermediate pair of wheels (2) is arranged on the bed and designed to block the direction of movement of the wheels and possibly also lock this pair of wheels and, in unlocked position, to allow the wheels (2) in this pair to move freely, which construction is intended to facilitate transport of the bed from place to place.
2. A hospital bed as claimed in claim 1, characterized in that the spring-loaded wheels (2) are so arranged that they always exert a pressure on the floor, both when stationary and during transport.
3. A hospital bed as claimed in claims 1-2, characterized in that the frame (1) can be applied on both new and old beds.
4. A hospital bed as claimed in claim 1, characterized in that the ratchet includes a hexagon bar (7) for insertion into a corresponding aperture (5) in the vertical support shafts (3) for the intermediate pair of wheels (2).
5. A hospital bed as claimed in claim 4, characterized in that the ratchet is arranged to be operated from the end of the bed.
6. A hospital bed as claimed in any of the preceding claims, characterized in that the resilient means consist of helical springs (4) wound around the vertical support shafts (3) and clamped between washers (6) welded around these shafts, and the intermediate pair of wheels (2).



INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 97/01814

A. CLASSIFICATION OF SUBJECT MATTER		
IPC6: A61G 7/08 // B 60 B 33/02 According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols)		
IPC6: A61G, B60B		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
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Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5348326 A (E.H. FULLENKAMP ET AL.), 20 Sept 1994 (20.09.94), column 2, line 41 - line 47, figures 1,6 --	1-6
Y	EP 0618088 A2 (HILL-ROM COMPANY, INC.), 5 October 1994 (05.10.94), abstract -- -----	1-6
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Information on patent family members

03/02/98

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Patent document cited in search report			Publication date	Patent family member(s)		Publication date
US	5348326	A	20/09/94	NONE		
EP	0618088	A2	05/10/94	CA	2120312 A	01/10/94
				US	5377372 A	03/01/95